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REMARKS

Favorable reconsideration is requested in view of the above amendments and following remarks. Applicant appreciates the courtesy shown by the Examiner in discussing this case with Applicant's representative on August 10, 2009. The discussions of the interview are reflected in the following remarks.

Claim 1 has been amended. The amendments to claim 1 are supported by the original disclosure, for example on page 7, line 21 to page 8, line 4 and Figure 1. Figure 1 for example, shows the configuration of an apparatus used to implement the method of claim 1. The apparatus of Figure 1 includes a feed tank 1, a heater 3, and a sub-critical reaction device 4. These components are connected via pipes in this order. The apparatus further includes an intermediate tank 6, a metering pump 7, a fermentation vessel 8, and a gas holder 9. These components are connected via pipes in this order. The intermediate tank 6 is connected with a pipe led from the sub-critical reaction device 4, and a back pressure valve 5 is arranged in this pipe. During operation, an organic waste is initially put into the feed tank 1. The organic waste is introduced to the heater by the high pressure pump and then introduced to the sub-critical reaction device 4 as it is, where the organic waste is subjected to a sub-critical water treatment to be converted into low molecular weight substances. The low molecular weight substances are sent to the intermediate tank 6 to be stored therein temporarily. Then, via the metering pump 7, a certain amount of low molecular weight substances in the intermediate tank 6 is sent to the fermentation vessel 8 to be subjected to a methane fermentation treatment with bacteria therein. Methane gas generated in the fermentation vessel 8 is sent through the pipe to the gas holder 9, where the methane gas is collected. Thus, the original disclosure provides support for the limitation: in step (a), the organic wastes treated with at least one of supercritical water and sub-critical water are organic wastes that have not been subjected to methane fermentation within the methane fermentation vessel. Applicants submit that no new matter has been added. Claims 1-5 and 7-14 remain pending in the application.

Claims 1-4, 7 and 11-13 are rejected under 35 USC 102(b) as being anticipated by Nagamatsu et al. (US 6,143,176). Applicant respectfully traverses the rejection.

Nagamatsu describes a process where the organic matter is initially subjected to methane fermentation, and the resulting product after methane fermentation is subjected to a hydrothermal treatment (see col. 2, lines 60-63; col. 3, lines 11-15; col. 4, lines 24-25). Nagamatsu clearly

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teaches that the initial methane fermentation treatment of the organic waste is essential to overcome the problems that occur when the organic waste is directly subjected to hydrothermal treatment (see col. 1, lines 11 to col. 2, lines 19; col. 2, lines 30-50; col. 6, line 41 to col. 7, line 2).

On the other hand, claim 1 recites (a) treating organic wastes with at least one of supercritical water and sub-critical water, (b) separating the treated substances into an oil phase, a water phase, and a solid phase, so that the water phase is collected, (c) feeding the water phase collected in step (b) into a methane fermentation vessel and (d) subjecting the collected water phase to methane fermentation within the methane fermentation vessel. Claim 1 further recites that in step (a), the organic wastes treated with at least one of supercritical water and sub-critical water are organic wastes that have not been subjected to methane fermentation within the methane fermentation vessel. These features are not disclosed in Nagamatsu. In fact, Nagamatsu leads away from these features. Accordingly, claim 1 and its dependent claims are patentable over the reference.

Claims 5 and 10 are rejected under 35 USC 103(a) as being unpatentable over Nagamatsu et al. Applicant respectfully traverses the rejection.

Claim 1 has been distinguished above. Claims 5 and 10 depend from claim 1 and are patentable over the reference for at least the same reasons discussed above. Applicant does not concede the correctness of the rejection.

Claims 8-9 and 14 are rejected under 35 USC 103(a) as being unpatentable over Nagamatsu et al. in view of Harada et al. (US 5,057,220). Applicant respectfully traverses the rejection.

Claim 1 has been distinguished above. Harada does not remedy the deficiencies of Nagamatsu. Claims 8-9 and 14 depend from claim 1 and are patentable over the references for at least the same reasons discussed above. Applicant does not concede the correctness of the rejection.

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In view of the above, favorable reconsideration in the form of a notice of allowance is respectfully requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3804.



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DPM/ym

Respectfully submitted,

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